	Application No.	Applicant(s)
Advisory Action ***Before the Filing of an Appeal Brief***	*10/039,187*	YU ET AL.
	Examiner	**Art Unit**	
	ROBERTA PRENDERGAST	2628	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>21 September 2009</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.

   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ They raise the issue of new matter (see NOTE below);

   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: _____.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/Ulka Chauhan/
Supervisory Patent Examiner, Art Unit 2628

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues, with respect to the Maya reference, that "Applicant initially notes that nothing conclusively indicates that the "Maya" reference is prior art at all. The Examiner appears to have printed some web pages from caad.arch.ethz.ch on or about August 12, 2008, nearly seven years after the filing date of the instant application. While some pages bear various copyright dates, it is unclear to what these dates refer. Applicant has attempted to determine when the "ethz.ch" domain was registered, but this information was not available. Archive.org shows an "extruding surfaces" page in substantially similar form with a date of May 10, 2001, but this date would not make the web page prior art under 35 USC 102(b), nor is it clear that all teachings and pages relied upon by the Examiner appeared on that date or any other specific date." It is noted that each webpage of the electronic document individually indicates the copyright date of that page.

Examiner respectfully submits that the cited Maya Unlimited 2.0 User Guide is a user guide provided by the Alias Wavefront software company with the release of version 2 of the Maya software product. Examiner has provided a search of the Internet Archive Wayback machine for the Alias Wavefront software company (it is noted that this company was purchased by the Autodesk company in 2006). Various pages from the Alias Wavefront software company has been provided from two specific links circled in the Internet Archive search results. The first PDF document, printed from the link dated August 23, 1999, includes press release links, and their subsequent pages, indicating that the Maya Ultimate 2.0 software package was released/shipped for public sale on June 21, 1999. Although the link to the press release dated June 21, 1999 no longer works, it is noted that the subsequent press release date July 21, 1999 does work and includes a paragraph stating the current price of the Maya Unlimited 2 software package (circled and pointed to for the applicant's benefit). The second PDF document, printed from the link dated May 10, 2000, includes a support link that connects to a page containing a link to qualification charts (circled and pointed to for the applicant's benefit) that when clicked provides a listing of the qualification charts for Maya including version 2.0 (also circled and pointed to for the applicant's benefit). It is noted that the link to the qualification chart for Windows NT no longer works however the link to the qualification chart for IRIX does work and the qualification chart indicates both the Maya Complete and the Maya Unliimited software packages for version 2.0. Thus one of ordinary skill in the art at the time of invention would reasonably conclude that the 1998-1999 copyright date for the Maya Unliimited 2.0 User Guide for a software product that was released/shipped for public consumption on June 21, 1999 is a valid 35 USC 102(b) reference.

Applicant then argues, with respect to the cited Maya reference, that "Maya does not appear to teach the features attributed by the Examiner. This analysis is made difficult by the Examiner's reference to page numbers that do not appear on web pages, and do not correspond to the page numbering that Applicant is able to generate. For example, the Examiner refers to "Pages 20-21, Extruding Surfaces", but there are no pages numbered 20-21. If the Examiner intends to continue to rely on the Maya reference, she is respectfully requested to include, in any further actions, a reproduction of the figure or teaching on which she relies, and a clear reference to the section and URL for that support."

Examiner respectfully submits that the cited Maya reference webpages were printed to a PDF file (each single webpage generating from 1 to 14 pages in the PDF file) that was then submitted with the Office Action via the electronic file system and mailed on August 21, 2008. Examiner has provided a copy of the cited reference herein with each page individually numbered.

Applicant next argues, with respect to claim 24, that "The Examiner appears to refer to the section "To build a birail surface from a single profile curve" on ModelingNURBS/modelNURBSsurfaces.fm8.html#168737 (all website references herein are to caad.arch.ethz.ch/info/maya/manual/UserGuide/as of the time of filing this response). The upper left figure on the image reproduced below could be viewed as including the curves necessary to define a Px 1 surface (e.g., as P rail curves and 1 profile curve), but no corresponding surface is shown, no teaching is shown that Maya's system actually uses these curves internally to define a surface, and it is clear that the remaining figures all show NxM surfaces."

Examiner respectfully submits that Applicants specification teaches wherein a surface is determined to be a Px1 surface or an NxM surface based on the number of section curves and guide curves that, in combination, may define a surface, see pages 9-10, lines 21-3. Thus, as defined in the specification, Maya teaches determining that a first surface of a drawing constitutes a Px1 surface condition when the surface is defined by P section curves and only 1 guiding curve, and determining that a second surface of a drawing comprises an NxM surface when the surface is defined by N section curves and M guiding curves, see Pages 20-21, Extruding Surfaces; Pages 21-22, Choosing the extrude style; Page 34, Adding curves to Lofted surfaces; Page 43, Using the Birail 1 Tool, i.e. once an NxM surface has been generated via extrusion, lofting or the Birail Tools, it is understood that additional curves may be added/selected such that a first surface having a Px1 surface condition is determined. It is noted that Applicant does not specifically disclose how the determining step is performed and therefore any method of defining a surface in a U,V direction is sufficient to disclose such limitations.

Applicant next argues, with respect to claim 24, that "Applicant further notes that the Examiner's statement that "it is understood that additional curves may be added/selected such that a first surface having a Px 1 condition is determined" is not supported in the reference, nor are the other statements throughout the rejection that are prefaced with "it is understood', These "understandings" are not common knowledge, nor supported by any evidence in the record. "R is understood" appears to refer to the Examiner's personal view as of 2009, and has nothing at all to do with the teachings of the references or what was known by those of skill in the art at the time of filing. This is not proper support for any rejection. All such "it is understood" statements are traversed as not meeting any evidentiary requirement for a proper rejection of claims. If the Examiner is relying on personal knowledge to support the finding of what is known in the art, the Examiner is respectfully requested to provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding, as required by 37 CFR 1.104(d)(2)."

Examiner respectfully submits that the statement "it is understood" is not meant to indicate Examiners personal view but to indicate what

one of ordinary skill in the art would reasonably conclude based on the disclosure of the cited references and based on applicant's own disclosure.

Applicant then argues, with respect to claim 24, that "Claim 24 also requires "determining that a second surface of a drawing comprises a second plurality of curves constituting a first N x M surface condition, a first N x M surface condition being defined by a number of third curves equal to N and a number of fourth curves equal to M, wherein N and M are integers greater than one." It is certainly true that several figures in Maya show NxM surfaces. The Examiner's further statement that "once an NxM surface has been generated ... it is understood that additional curves may be added./selected such that a first surface having a Pxl surface condition is determined adjacent to a second NxM surface having a first NxM surface .... "is not taught by the reference, is unsupported in the reference, and is traversed..." and "Claim 24 also requires "converting the P x 1 surface condition of the first surface into a second N x M surface condition to match the N x M surface condition of the second surface, the second N x M surface condition being defined by a number of fifth curves equal to N and a number of sixth curves equal to M, wherein Nand M are integers greater than one". This is not taught by the references of record. Nothing in the references at all teaches converting the P x 1 surface condition of a first surface into an NxM surface condition that matches anything. There is no conversion of this sort taught at all. This reference discusses converting NURBS to polygonal geometry at ModelingPoly/PolyNURBSToPoly.fm.html, but does not discuss at all converting a Px1 surface condition to an NxM surface condition to match another NxM surface condition, as claimed. The Examiner admits this."

Examiner respectfully submits that Maya Unlimited 2.0 teaches wherein a first surface is comprised of Px1 curves and a second surface is comprised of NxM curves such that once an NxM surface has been generated via extrusion, lofting or the Birail Tools, it is understood that additional curves may be added/selected such that a first Px1 surface having a Px1 surface condition is determined and then a second NxM surface having a second NxM surface condition is generated on the Px1 surface, see Page 34, Adding curves to Lofted surfaces. Konno et al. teaches wherein two surfaces are converted such that additional curves and/or knots are added to a first surface until the number of curves and/or knots match the number of curves and/or knots of the second surface in order to ensure continuity across the two surfaces thus teaching wherein the surface condition of the first surface is converted to match the surface condition of the second surface, see Fig. 16; column 11, lines 57-65, thus indicating that the surface condition of the first surface matches (i.e. is continuous with) the surface condition of the second surface. Therefore the advantage to combining Maya Unlimited 2.0 with the teachings of Konno et al. is to provide a free-form surface generation system and method that has the following advantageous features; (1) joining smoothly two adjacent free-form surfaces sharing a boundary curve of any type (e.g., composite curve) by creating interior control points determined by the condition of connection on the boundary, which is derived from the condition of continuity on the boundary, which is determined by the boundary curve and other curves connected thereto; (2) generating free-form surfaces smoothly connected to each other by creating the control points for all the boundary curves and combining those control points; (3) generating a free-form surface in (2) which is smoothly joined to adjacent Gregory patches; (4) generating a free-form surface in (2) which is smoothly joined to adjacent rational boundary Gregory patches; (5) representing complex curve mesh by as few curves as possible in (2); (6) interpolating only one, if possible, surface into curve mesh in (2); and (7) keeping Cn continuity on a surface within the boundary curves (Konno et al. column 3, lines 8-27).

Applicant then argues, with respect to claim 24, that "Maya does not teach at all teach constructing an N x M surface under the second N x M surface condition, where the second NxM surface condition is a conversion of a Pxl surface condition, as claimed. Nor does any other art of record. A fundamental problem with the Examiner's rejection is that "surface conditions" refer to how the underlying CAD system or software defines and manipulates the various object models. A user manual such as the Maya reference does not describe this detail at all; it is only concerned with how a user interacts with the system and what is displayed on the screen. While the Examiner appears to have a large amount of conjecture about what the system might be doing in terms of defining, identifying, and manipulating various curves, surfaces, and surface conditions, this sort of detail simply isn't taught in this user manual, and the Maya reference cannot support the Examiner's rejection. While the Examiner may attempt to look at a figure from this manual and consider what she determines to be a surface condition, there is nothing in this reference at all that indicates what the Maya's software or system has determined to be the relevant conditions. As such, this manual cannot describe the operations of the computer systems, apparatuses, or software programs as claimed in the instant application."

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). It is noted that the claims have been rejected based on both the Maya reference and the Konno reference, while applicant's Remarks indicated above are directed solely to the Maya reference.

Applicant then argues, with respect to claim 24, that "A fundamental problem with the Examiner's rejection is that "surface conditions" refer to how the underlying CAD system or software defines and manipulates the various object models. A user manual such as the Maya reference does not describe this detail at all; it is only concerned with how a user interacts with the system and what is displayed on the screen. While the Examiner appears to have a large amount of conjecture about what the system might be doing in terms of defining, identifying, and manipulating various curves, surfaces, and surface conditions, this sort of detail simply isn't taught in this user manual, and the Maya reference cannot support the Examiner's rejection. While the Examiner may attempt to look at a figure from this manual and consider what she determines to be a surface condition, there is nothing in this reference at all that indicates what the Maya's software or system has determined to be the relevant conditions. As such, this manual cannot describe the operations of the computer systems, apparatuses, or software programs as claimed in the instant application."

Examiner respectfully submits that the claim limitations have been rejected over primary reference Maya in view of secondary reference Konno and thus Applicant appears to be arguing against the references individually. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant then argues, with respect to claim 24, that "As is clear, while Konno does discuss some curve matching, there is not teaching at all in the passage above or the remainder of Konno of converting a P x 1 surface condition of a first surface into an N x M surface condition to match the N x M surface condition of a second surface, asclaimed, nor of constructing an N x M surface under the second N x M surface condition, also as claimed. As these limitations are clearly not present in Konno, and are admitted by the Examiner as not being taught by Maya, it is clear that no art of record teaches this limitation."

Examiner respectfully submits that Konno et al. teaches generating at least one auxiliary curve that is substantially continuous with any adjoining surfaces of the first surface, Figs. 20-21; column 5, lines 20-29 and 35-48, i.e. the G1 continuity of the boundary curve is checked at the endpoints and saved in memory and then used as the condition of continuity when generating auxiliary curves thereby ensuring that the auxiliary curve is continuous with any adjoining surfaces of the surface for which the auxiliary curve is generated. Applicant teaches wherein the surface condition of a first surface is an NXM surface when the edges/curves that define the boundaries of the surface in a first direction (i.e. North/South) have matching control points connecting the edges/curves of the opposing direction (i.e. East/West) while a second connected surface may be bordered by an edge/curve with control points directed to the curves of the neighboring surface and thus not belonging to that surface's surface condition (i.e. not continuous), see figure 2D. Therefore the combination of primary reference Maya 2.0 with secondary reference Konno et al. teaches all of the claim limitations of claim 24 as indicated above.